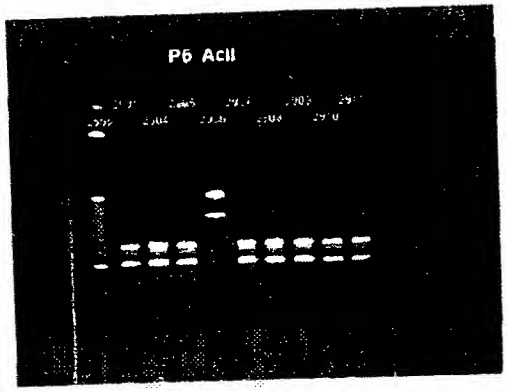
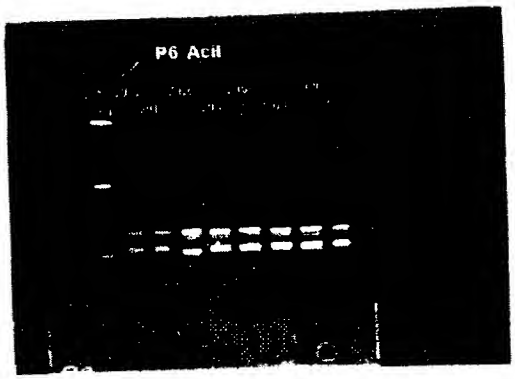
Fig.1

Photographs of the electrophoresis gels obtained in the RFLP analysis of BASB019

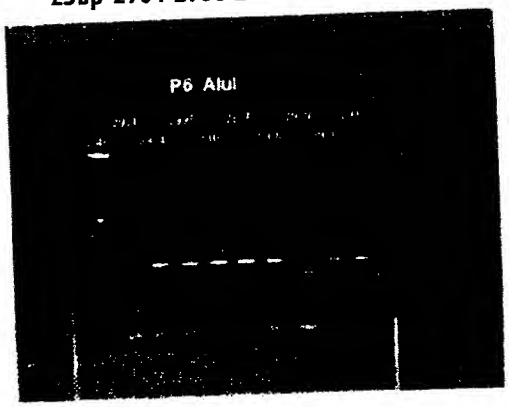
P6 AciI
2931 2905 2907 2909 2911
25bp 2904 2906 2908 2910



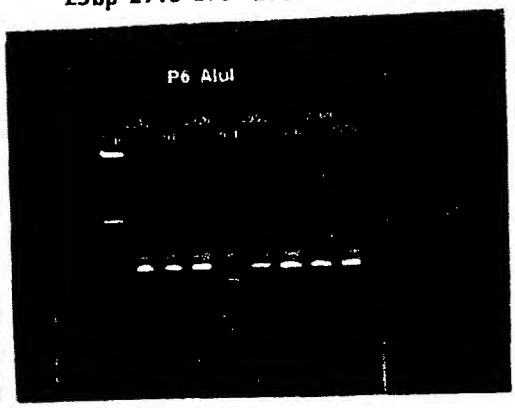
P6 AciI
2912 2926 2956 2969
25bp 2913 2931 2960 2975



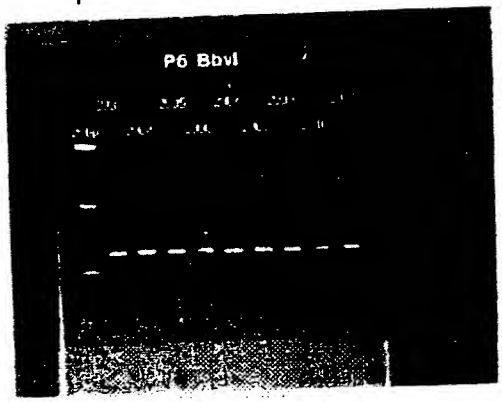
P6 AluI
2931 2905 2907 2909 2911
25bp 2904 2906 2908 2910



P6 AluI
2912 2926 2956 2969
25bp 2913 2931 2960 2975



P6 BbvI
2931 2905 2907 2909 2911
25bp 2904 2906 2908 2910



P6 BbvI
2912 2926 2956 2969
25bp 2913 2931 2960 2975

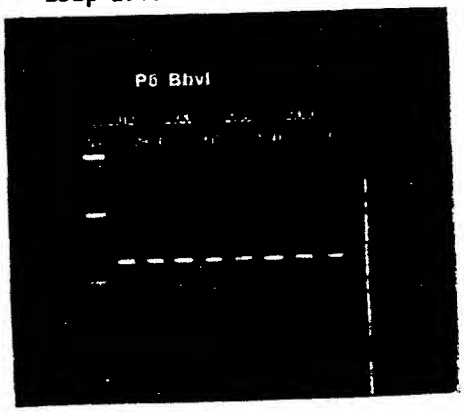
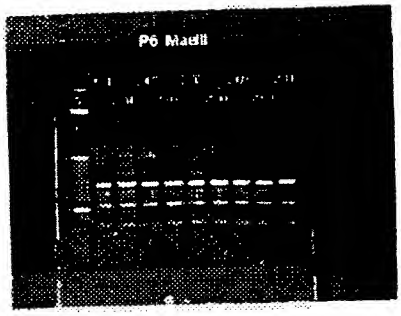


Fig.1 (cont)

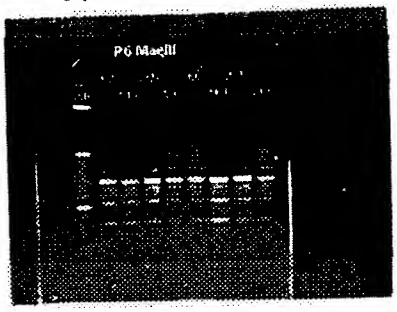
P6 MaeII

25bp 2931 2904 2905 2906 2907 2908 2909 2910 2911



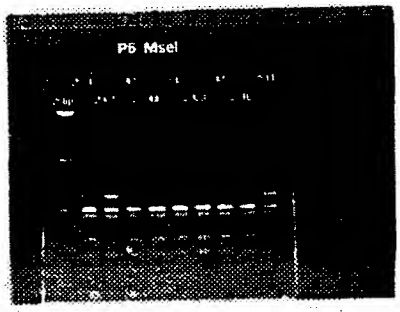
P6 MaeIII

25bp 2912 2913 2926 2931 2956 2960 2969 2975



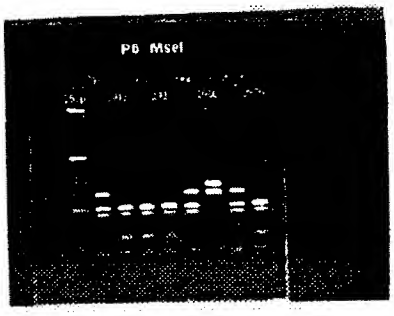
P6 MseI

25bp 2931 2904 2905 2906 2907 2908 2909 2910 2911



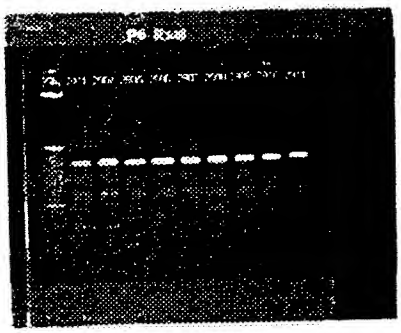
P6 MseI

25bp 2912 2913 2926 2931 2956 2960 2969 2975



P6 RsaI

25bp 2931 2904 2905 2906 2907 2908 2909 2910 2911



P6RsaI

25bp 2912 2913 2926 2931 2956 2960 2969 2975

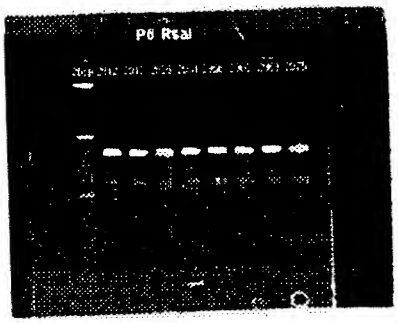


Figure 2 : Alignment of the BASB019 ploynucleotide sequences.
Identity to SeqID No:1 is indicated by a dot.

```
                    *         20          *         40          *
Seqid1  : ATGATGTTACATATTCAAATTGCCGCCGCTGCCGCCGCTTTATCGGTACT
:   50
Seqid3  : ..................................................
:   50
Seqid5  : ..................................................
:   50
Seqid7  : ........................T.........................
:   50


                   60          *         80          *         100
Seqid1  : AACTTTTATGACAGGCTGTGCCAATAAATCAACAAGTCAAGTTATGGTTG
: 100
Seqid3  : ..................................................
: 100
Seqid5  : ..................................................
: 100
Seqid7  : ..................................................
: 100


                    *         120         *         140         *
Seqid1  : CTCCTAATGCACCCACAGGTTACACTGGGGTTATCTATACTGGTGTTGCA
: 150
Seqid3  : ..................................................
: 150
Seqid5  : ..................................................
: 150
Seqid7  : ...............G......G....C........C.............
: 150
```

```
                160         *       180         *       200
Seqid1 : CCTTTGGTAGATAATGATGAGACCGTTAAGGCTCTGGCAAGCAAGCTACC
: 200
Seqid3 : ..................................A.......C......
: 200
Seqid5 : ......................TA.C...A..T.........C......
: 200
Seqid7 : ........................C......T.........C......
: 200


                    *       220         *       240         *
Seqid1 : CAGTTTGGTTTATTTTGACTTTGATTCTGATGAGATTAAACCGCAAGCTG
: 250
Seqid3 : ..................................................
: 250
Seqid5 : ..................................................
: 250
Seqid7 : ..................................................
: 250


                260         *       280         *       300
Seqid1 : CTGCCATCTTAGACGAACAAGCACAATTTTTAACCACCAATCAAACAGCT
: 300
Seqid3 : ..................................................
: 300
Seqid5 : ..................................................
: 300
Seqid7 : ..................................................
: 300
```

SUBSTITUTE SHEET (RULE 26)

```
                    *       320         *       340         *
Seqid1 : CGTGTTTTGGTTGCAGGTCATACCGATGAGCGTGGTAGTCGTGAGTATAA
: 350
Seqid3 : ..................................................
: 350
Seqid5 : ..................................................
: 350
Seqid7 : ..................................................
: 350

                  360         *       380         *       400
Seqid1 : TATGTCACTGGGGGAACGCCGTGCGGTGGCGGTACGCAACTATTTGCTTG
: 400
Seqid3 : ................T.................................
: 400
Seqid5 : ..................................................
: 400
Seqid7 : ..................................................A
: 400

                    *       420         *       440         *
Seqid1 : GTAAAGGCATTAATCAAGCCAGCGTTGAGATTATCAGTTTTGGTGAAGAA
: 450
Seqid3 : ..................................................
: 450
Seqid5 : ..................................................
: 450
Seqid7 : .........C........................................
: 450
```

```
                460         *         480         *         500
Seqid1 : CGCCCTATCGCATTTGGCACAAATGAAGAAGCATGGTCACAAAATCGTCG
: 500
Seqid3 : ..................................................
: 500
Seqid5 : ..................................................
: 500
Seqid7 : ..................................................
: 500


                    *
Seqid1 : TGCTGAACTGTCTTATTAA : 519
Seqid3 : ................... : 519
Seqid5 : ................... : 519
Seqid7 : ................... : 519
```

SUBSTITUTE SHEET (RULE 26)

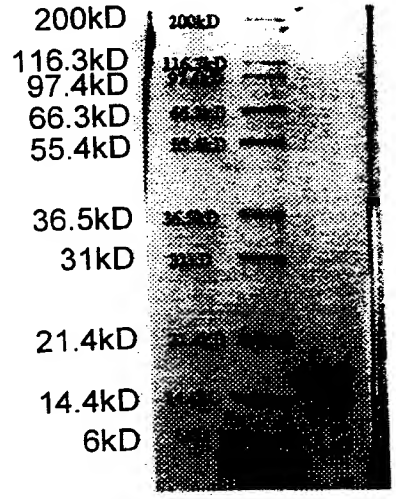
Figure 3 : Alignment of the BASB019 polypeptide sequences.
Identity to SeqID No:2 is indicated by a dot.

```
                    *         20          *         40          *
Seqid2 : MMLHIQIAAAAAALSVLTFMTGCANKSTSQVMVAPNAPTGYTGVIYTGVA
:  50
Seqid4 : ..................................................
:  50
Seqid6 : ..................................................
:  50
Seqid8 : ..........................................A.......
:  50


                  60          *         80          *         100
Seqid2 : PLVDNDETVKALASKLPSLVYFDFDSDEIKPQAAAILDEQAQFLTTNQTA
: 100
Seqid4 : ............T.....................................
: 100
Seqid6 : ........I.T...T.....................................
: 100
Seqid8 : ............T.....................................
: 100


                    *         120         *         140         *
Seqid2 : RVLVAGHTDERGSREYNMSLGERRAVAVRNYLLGKGINQASVEIISFGEE
: 150
Seqid4 : ..................................................
: 150
Seqid6 : ..................................................
: 150
Seqid8 : ..................................S...............
: 150
```

```
                  160         *
Seqid2 : RPIAFGTNEEAWSQNRRAELSY : 172
Seqid4 : ....................... : 172
Seqid6 : ....................... : 172
Seqid8 : ....................... : 172
```

Fig.4

Coomasie stained SDS-PAGE of BASB019 protein



FORM PTO-1390 (Rev. 5-93)

Fig.5

Western-blot with tetra-His antibody of BASB019 protein

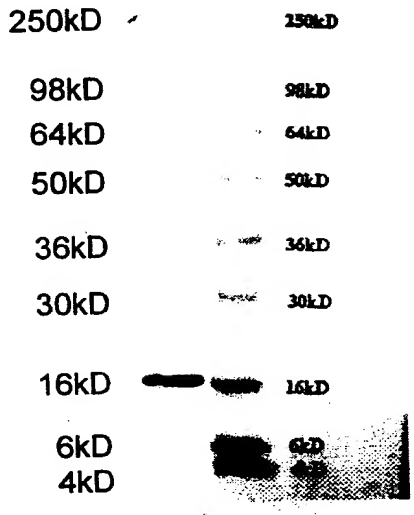


Fig.6

Western-blot of purified recombinant BSAB019 protein probed with the corresponding anti-recombinant protein sera at 1:200

1 2 3 4 5

kDa

250
148

60
42
30
22
17
6
4

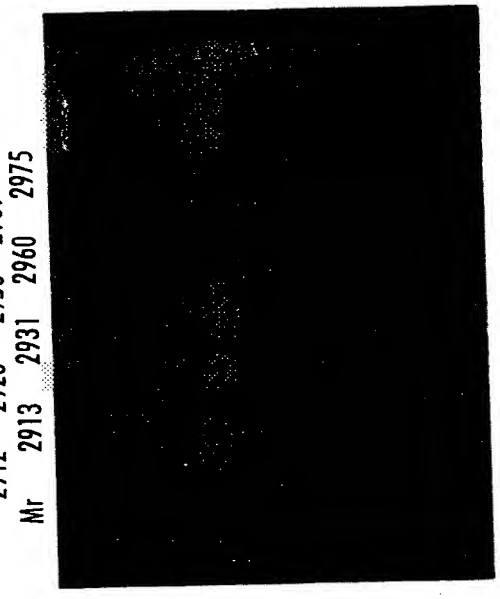
Lanes

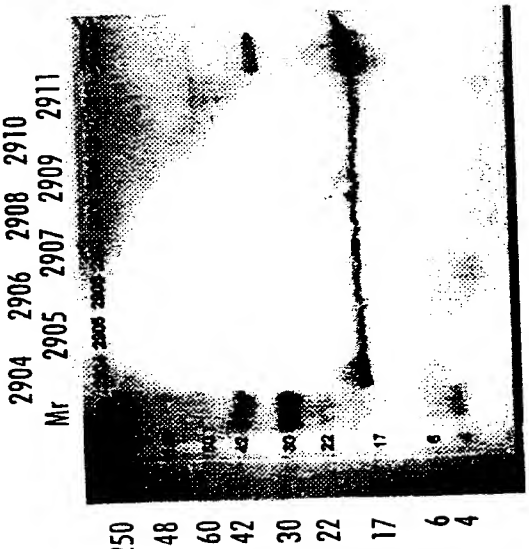
1 MW Marker
2 CovRb 252 pre
3 CovRb 252 post
4 CovRb 254 pre
5 CovRb 254 post

EP0057760 B1

Fig.7

Western-blot of whole cell lysates of 16 strains of M. Catarrhalis using pooled sera against the recombinant BASB019 protein. Sera was diluted 1:2000

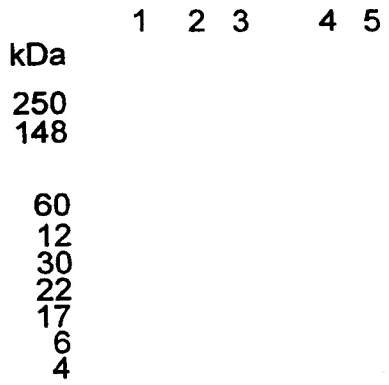




REPLACED BY 09/674,779

Fig.8

Western-blot of purified recombinant BSAB019 protein probed with pooled human convalescent sera at 1:100



Lanes

1 MW Marker
2 SBRb 302 pre
3 SBRb 302 post
4 SBRb 303 pre
5 SBRb 303 post